USSN 10/676,414

AMENDMENTS TO CLAIMS

- 1. (Currently amended) A method of fabricating a magnetic memory element, the method comprising forming a ferromagnetic data layer with a controlled nucleation site; the nucleation site being a divot in the data layer or a protrusion from the data layer.
- 2. (Original) The method of claim 1, wherein the nucleation site is not surrounded by a neighboring region of the data layer.
- 3. (Original) The method of claim 1, wherein the nucleation site has a lower switching threshold relative to a neighboring region of the data layer
- 4. (Original) The method of claim 1, wherein the nucleation site is formed at an edge of the data layer.
- 5. (Original) The method of claim 1, wherein the nucleation site is formed at a corner of the data layer.
 - 6. (Cancelled)
 - 7. (Cancelled)
- 8. (Currently amended) The method of claim [7] 1, wherein the <u>data layer</u> has at least two nucleation sites <u>with have a symmetric arrangement on the data layer</u>.

USSN 10/676.414

- 9. (Currently amended) The method of claim 7, wherein the nucleation sites have a A method of fabricating a magnetic memory element, the method comprising forming a ferromagnetic data layer with a non-symmetric arrangement of controlled nucleation sites.
- 10. (Currently amended) The method of claim [7] 9, wherein the nucleation sites have a uniform size and shape.
- 11.(Original) The method of claim 1, further comprising forming additional magnetic tunnel junction layers.
- 12. (Currently amended) A method of fabricating a data storage device, the method comprising forming an array of <u>square or rectangular</u> ferromagnetic data layers, each layer having first and second neighboring regions, the first <u>region regions</u> having a lower switching threshold than the second <u>region regions and</u>, the first regions being a substantially smaller <u>size</u> than the second regions, the first regions at the same location on the data layers across the array.
- 13. (Original) The method of claim 12, wherein the first regions are located at corners of the data layers.
- 14. (Original)The method of claim 12, wherein the first regions are located at edges of the data layers.
- 15. (Currently amended) The method of claim 12, wherein the first regions are either divets divots in the data layers or protrusion from the data layers.

USSN 10/676,414

JUN' 25 2004 8:37AM

- 16. (Original)The method of claim 12, wherein each data layer has more than one first region.
- 17.(Original)The method of claim 16, wherein each data layer has a symmetric arrangement of first regions.
- 18.(Original)The method of claim 16, wherein each data layer has a non-symmetric arrangement of first regions.
- 19. (Original)The method of claim 12, wherein the first regions have a uniform size and shape across the array.
- 20. (Original)The method of claim 12, wherein the first regions are formed during bit formation.
- 21.(Original)The method of claim 12, further comprising forming additional magnetic tunnel junction layers.

Claims 22-37 (Cancelled).